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TITLE

Forest Insect Detection Survey

Coeur d' Alene National Forest

1949

By

Forest Insect Laboratory
Coeur d' Alene, Idaho

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LABORATORY

Report
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Detection surveys are designed to determine the existence and severity of forest insect infestations for areas where such information is not known. This seasons survey was directed to several areas of white pine on the St. Joe National Forest, where potentially dangerous barkbeetle infestations were known to exist or had been previously reported. It is regretted that more time could not have been given to this survey, as there were perhaps others areas of equal importance. However, it is hoped that our program included all of the potentially dangerous areas. The information gained from this survey is shown in the following unit summaries.

Deception Creek Unit

Total Acres	600
Acres of Sample Strip	44
Coverage of area	7.3%
Trees and windfalls on strip attacked by M.P.B. 1949	13
Number of 1949 attacks per Acre	.3
Total 1949 Attacks	160

This area is in sec. 29 and 30, T. 51 N., R. 1 W. Infestation is found on the north exposures, and is confined to windfalls, with no standing attacked trees being recorded on sample strip. The attacks are moderate to light, which is a normal condition found in infested windfalls.

- * Exclusive of the Downey-Yellow Dog Areas.

Laverne Creek Unit

Total Acres	2560
Acres of Sample Strip	43
Coverage of area	1.7%
Trees and windfalls on strip attacked by M.P.B. 1949	1
Number of 1949 attacks per acre	.023
Total 1949 attacks (windfalls)	58

This unit comprises the Laverne Creek drainage in T. 50 N., R. 1 E. As shown in the above tabulation only one lightly attacked windfall was recorded.

Cougar Creek Unit

Total Acres	7500
Acres of Sample Strip	189
Coverage of area	2.5%
Trees and windfalls on strip attacked by M.P.B. 1949	36
Number of 1949 attacks per acre	.19
Total 1949 attacks (120 trees - 1305 windfalls)	1425

This unit comprises the mature white pine type of the Cougar Creek drainage located in T. 50 N., R. 1 and 2 E. The infestation is rather well distributed throughout the unit, although the data indicates a minor concentration in the upper portion of the drainage. The few infested trees encountered were considered as being overmature and of poor vigor. Standing trees were heavily attacked, with light to moderately heavy attacks in the windfalls. A few groups of two or three windfalls were recorded but there was apparently no concentration of this material.

Indian Creek Unit

Total Acres	600
Acres of sample strip	51
Coverage of area	8.5%
Trees and windfalls on strip attacked by M.P.B. 1949	1
Number of 1949 attacks per acre	.02
Total 1949 attacks (windfalls only)	12

This unit comprises all of the white pine type in the Indian Creek drainage exclusive of the Upper Indian Creek Unit. Only one windfall was recorded by an 8.5 percent coverage.

Upper Indian Creek Unit

Total acres	200
Acres of sample strip	21
Coverage of area	10.5%
Trees and windfalls on strip attacked by M.P.B. 1949 (3 trees, 2 windfalls)	5
Number of 1949 attacks per acre	.24
Total 1949 attacks (20 trees, 28 windfalls)	48

This unit lies in the south half of sections 5 and 6, T. 50 N., R. 3 E., at the head of Indian Creek. Control measures were conducted in this unit in the spring of 1948, and some 128 trees treated on 180 acres. In September 1948 a survey of the unit indicated an infestation of .159 of a tree per acre, or a total of 80 infested trees. However this data was applied to an area of 500 acres, while this years (1949) survey only considered an area of 200 acres. This difference in the acreage of the unit makes an estimate of the total number of infested trees rather difficult. However as the control project only covered 180 acres one can assume that the 200 acre figure is no doubt more accurate than the larger acreage.

Barrymore Creek Unit

Total acres of unit	600
Acres of sample strip	12
Coverage of area	2%
Trees and windfalls on strip attacked by M.P.B. 1949	5
Number of 1949 attacks per acre	.416
Total 1949 attacks (150 windfalls - 96 trees)	246

This unit includes all of the white pine type in the Barrymore Creek drainage in T. 50 N., R. 2 E. White pine is confined to the creek bottom and the north facing slopes. Attacks in both trees and windfalls varies from light to moderately heavy, with the beetle brood in all stages of development. Although only a 2% coverage was made of this area it is believed that the sample obtained is an adequate one.

Shoshone Unit

Total acres of unit	5000
Acres of sample strip	60
Coverage of area	1.2%
Trees and windfalls on strip attacked by M.P.B. 1949	2
Number of 1949 attacks per acre	.033
Total 1949 attacks (windfalls)	165

This unit lies in the upper Shoshone Creek drainage and comprises three tributary drainages, namely, Clinton, Rampike, and Cabin Creeks. The area is in T. 52 N., R. 4 E.

RECOMMENDATIONS

White pine windfalls infested with the mountain pine beetle are apparently rather well distributed throughout the white pine stands of the Coeur d'Alene National Forest. The seriousness of this condition for different areas will vary with the number of wind thrown white pine trees. Wind thrown white pine are a preferred host of the mountain pine beetle and are attracted to it. Just how far this attraction for the adult beetles is extended is not known. However, it is quite apparent that this material is attacked in preference to standing trees and often absorbs all of the infestation within specific areas.

A mountain pine beetle attack of a windfall is much lighter than in standing trees. In his studies of the behavior of this barkbeetle in white pine, Bedard found that there are only half as many individual attacks in a windfall as compared to the number in standing trees. He also found that the beetle emergence from windfalls, even with these light attacks, was as heavy as that from a standing tree. In other words the beetles required for a successful attack of a standing tree, will in most instances attack two windfalls, and the following season the beetle emergence from each windfall will equal that of a standing tree. As a result we recognize windfalls as adding materially to the increase potentials of an infestation. If an infestation was confined entirely to windfalls the increase potentials from the proceeding season would have been increased by practically 100 percent.

Of the areas covered by this survey the following units show a rather alarming number of windfalls infested with the mountain pine beetle.

UNIT	ACRES	INFESTED MATERIAL		
		PER ACRE	WINDFALLS	TOTAL PER UNIT
Barrymore	600	.41	150	246
Deception	600	.30	180	180
Upper Indian	200	.24	28	48
Cougar	7500	.19	1305	1425

Barrymore Creek This information is based upon a light coverage, and was in reality only an extensive reconnaissance. Before any definite control action is taken some additional data would need be obtained.

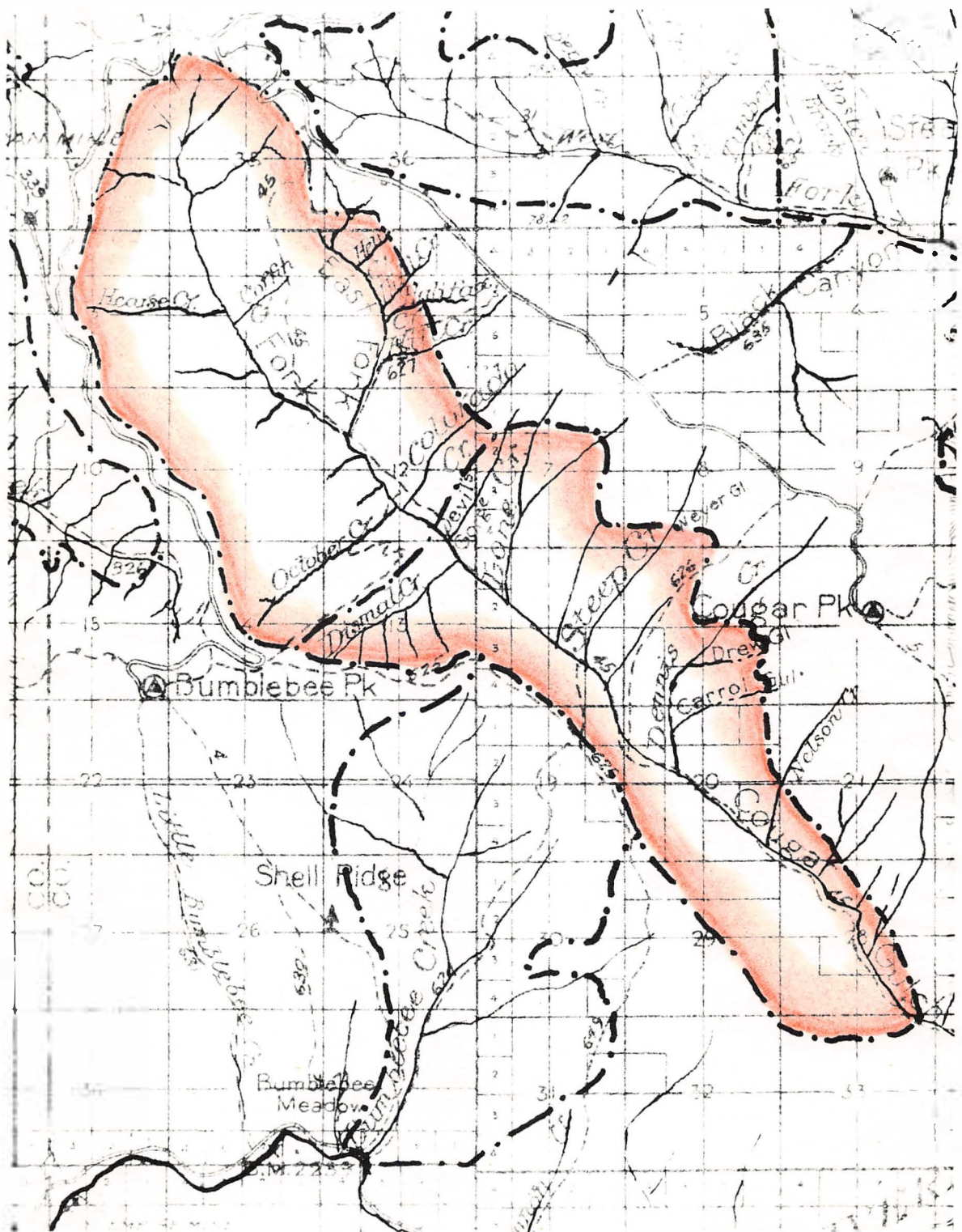
Deception Creek An attempt is being made to dispose of these trees through a timber sale or salvage operation.

Upper Indian Creek This is a small area on which 128 infested trees were treated in the spring of 1948. This years infestation (48 trees) still indicates a reduction in the severity of the infestation following control.

Cougar Creek An infestation of .19 of an infested tree per acre carries dangerous potentials. However in view of the large acreage involved and the resulting high cost of treatment, control measures would be of low priority.

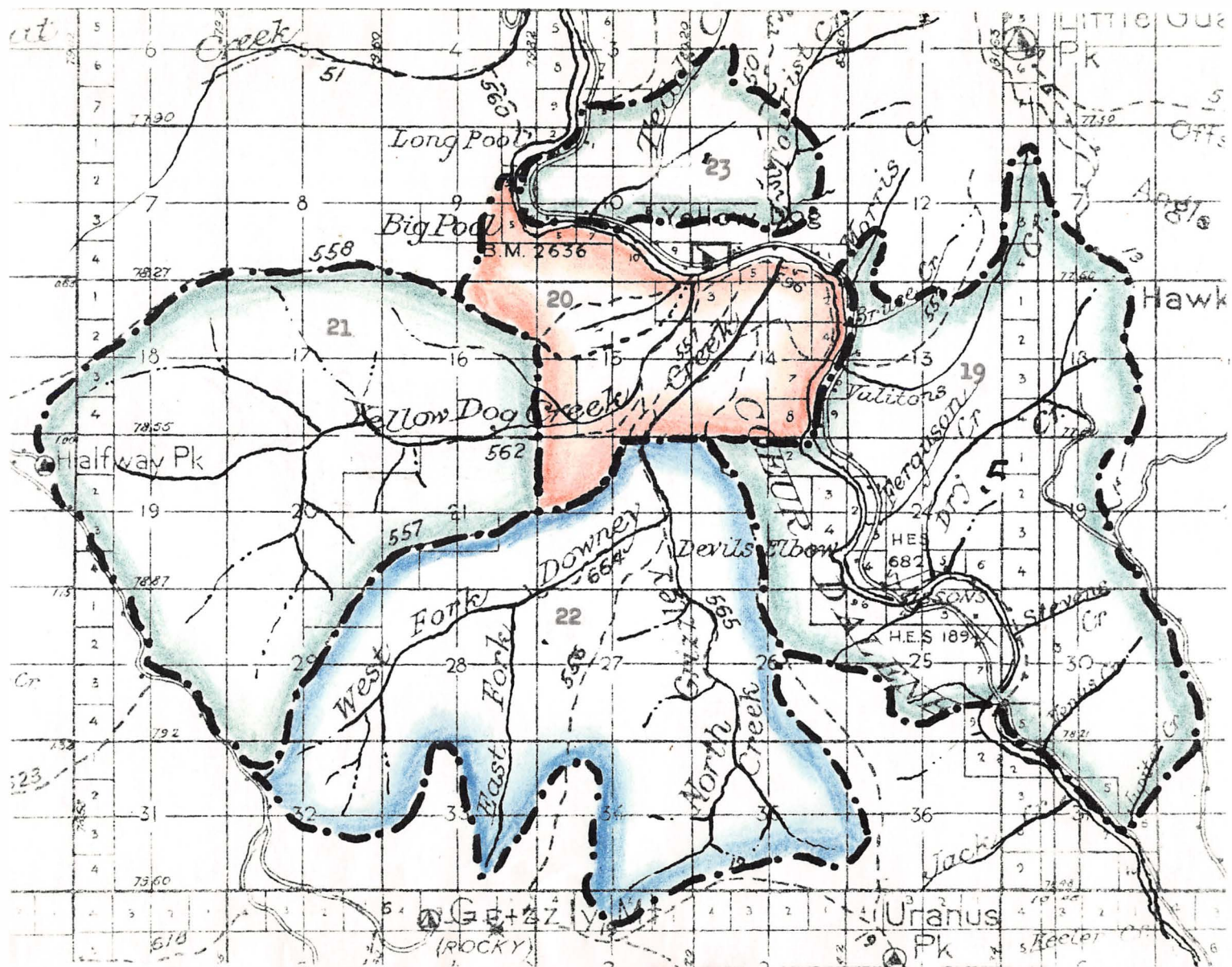
RECOMMENDATIONS

As stated the infestation in these four areas is considered as being potentially dangerous. The ability of such situations to develop in a relatively short time to destructive epidemic levels must be recognized. Because of this potential ability it is quite obvious that they should be listed for control. However, in view of the Downey-Yellow Dog situation covered in a separate report, where a more severe infestation exists, and where the potential danger of subsequent loss is much greater, these four areas are placed in a lower priority. The treatment of the infestation in these areas would require approximately 1300 effective man days.



COEUR D' ALENE National Forest
COUGAR CREEK UNIT

Acres 7500
120 Trees 1305 Windfalls



19 - Sisson's 20 - Yellow Dog River 21 - Yellow Dog Creek
22 - Downey Creek 23 North Yellow Dog